

Product: [7930A](#) 

DataTuff® Cat 5e, 4 Pr #24 Str BC, PO Ins, PVC Jkt, CMX-Outdoor CMR

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Product Description

Industrial Ethernet Cat 5e, 4 Pair 24AWG (7x32) Bare Copper, PO Insulation, PVC Outer Jacket, CMX-Outdoor CMR

Technical Specifications

Product Overview

|                        |                                                                                                                   |
|------------------------|-------------------------------------------------------------------------------------------------------------------|
| Suitable Applications: | outdoor, harsh environment, IIoT, factory or process automation, IP cameras and devices, data communication, etc. |
|------------------------|-------------------------------------------------------------------------------------------------------------------|

Construction Details

Conductor

| AWG | Stranding | Material         | Number of Pairs |
|-----|-----------|------------------|-----------------|
| 24  | 7x32      | BC - Bare Copper | 4               |

Insulation

| Material   | Color Code                                                                                                     |
|------------|----------------------------------------------------------------------------------------------------------------|
| Polyolefin | White/Blue Stripe & Blue, White/Orange Stripe & Orange, White/Green Stripe & Green, White/Brown Stripe & Brown |

|              |    |
|--------------|----|
| Bonded-Pair: | No |
|--------------|----|

Outer Jacket Material

| Material                 | Nom. Diameter | Ripcord |
|--------------------------|---------------|---------|
| PVC - Polyvinyl Chloride | 0.24 in       | No      |

Electrical Characteristics

Electricals

| Max. Conductor DCR | Max. DCR Unbalance | Max. Capacitance Unbalance | Nom. Mutual Capacitance | Nom. Velocity of Prop. |
|--------------------|--------------------|----------------------------|-------------------------|------------------------|
| 9.38 Ohm/1000ft    | 3%                 | 330 pF/ft                  | 15 pF/ft                | 69%                    |

Delay

| Max. Delay  | Max. Delay Skew | Nom. Velocity of Propagation (VP) [%] | Typical Delay Skew |
|-------------|-----------------|---------------------------------------|--------------------|
| 510 ns/100m | 45 ns/100m      | 69%                                   | 12 ns/ft           |

High Freq

| Frequency [MHz] | Max. Insertion Loss (Attenuation) | Min. NEXT [dB] | Min. PSNEXT [dB] | Min. ACR [dB] | Min. PSACR [dB] | Min. ACRF (ELFEXT) [dB] | Min. PSACRF (PSELFEXT) [dB] | Min. RL (Return Loss) [dB] | Min. SRL (Structural Return Loss) | Max./Min. Input Impedance (unFitted) | Max./Min. Fitted Impedance |
|-----------------|-----------------------------------|----------------|------------------|---------------|-----------------|-------------------------|-----------------------------|----------------------------|-----------------------------------|--------------------------------------|----------------------------|
| 1 MHz           | 2.5 dB/100m                       | 65.3 dB        | 62.3 dB          | 62.8 dB       | 59.8 dB         | 63.8 dB                 | 60.8 dB                     | 20 dB                      | 23 dB                             | 100 ± 15 Ohm                         | 100 ± 15 Ohm               |
| 4 MHz           | 4.9 dB/100m                       | 56.3 dB        | 53.3 dB          | 51.4 dB       | 48.4 dB         | 51.7 dB                 | 48.7 dB                     | 23 dB                      | 23 dB                             | 100 ± 15 Ohm                         | 100 ± 15                   |
| 8 MHz           | 6.9 dB/100m                       | 51.8 dB        | 48.8 dB          | 44.9 dB       | 41.9 dB         | 45.7 dB                 | 42.7 dB                     | 24.5 dB                    | 24.5 dB                           | 100 ± 15 Ohm                         | 100 ± 15                   |
| 10 MHz          | 7.8 dB/100m                       | 50.3 dB        | 47.3 dB          | 42.5 dB       | 39.5 dB         | 43.8 dB                 | 40.8 dB                     | 25 dB                      | 25 dB                             | 100 ± 15 Ohm                         | 100 ± 15                   |
| 16 MHz          | 9.9 dB/100m                       | 47.3 dB        | 44.3 dB          | 37.4 dB       | 34.4 dB         | 39.7 dB                 | 36.7 dB                     | 25 dB                      | 25 dB                             | 100 ± 15 Ohm                         | 100 ± 15                   |
| 20 MHz          | 11.1 dB/100m                      | 45.8 dB        | 42.8 dB          | 34.7 dB       | 31.7 dB         | 37.7 dB                 | 34.7 dB                     | 25 dB                      | 25 dB                             | 100 ± 15 Ohm                         | 100 ± 15                   |
| 25 MHz          | 12.5 dB/100m                      | 44.3 dB        | 41.3 dB          | 21.8 dB       | 28.8 dB         | 35.8 dB                 | 32.8 dB                     | 24.3 dB                    | 24.3 dB                           | 100 ± 15 Ohm                         | 100 ± 15                   |
| 31.25 MHz       | 14.1 dB/100m                      | 42.9 dB        | 39.9 dB          | 28.8 dB       | 25.8 dB         | 33.9 dB                 | 30.9 dB                     | 23.6 dB                    | 23.6 dB                           | 100 ± 15 Ohm                         | 100 ± 15                   |
| 62.5 MHz        | 20.4 dB/100m                      | 38.4 dB        | 35.4 dB          | 18 dB         | 15 dB           | 27.8 dB                 | 24.8 dB                     | 21.5 dB                    | 21.5 dB                           | 100 ± 15 Ohm                         | 100 ± 15                   |
| 100 MHz         | 26.4 dB/100m                      | 35.3 dB        | 32.3 dB          | 8.9 dB        | 5.9 dB          | 23.8 dB                 | 20.8 dB                     | 20.1 dB                    | 20.1 dB                           | 100 ± 15 Ohm                         |                            |

|         |              |         |         |  |  |         |         |         |  |              |  |
|---------|--------------|---------|---------|--|--|---------|---------|---------|--|--------------|--|
| 155 MHz | 33.7 dB/100m | 32.5 dB | 29.5 dB |  |  | 19.9 dB | 16.9 dB | 15.8 dB |  | 100 ± 25 Ohm |  |
| 200 MHz | 38.9 dB/100m | 30.8 dB | 27.8 dB |  |  | 17.7 dB | 14.7 dB | 15 dB   |  | 100 ± 25 Ohm |  |

Voltage

| UL Voltage Rating                |
|----------------------------------|
| 300 V (CMR), 300 V (CMX-Outdoor) |

Mechanical Characteristics

Temperature

| UL Rating | Operating      | Installation   | Storage        |
|-----------|----------------|----------------|----------------|
| 60°C      | -40°C To +75°C | -25°C To +75°C | -40°C To +85°C |

Bend Radius

| Stationary Min. |
|-----------------|
| 0.960 in        |

|                    |               |
|--------------------|---------------|
| Max. Pull Tension: | 25 lbs        |
| Bulk Cable Weight: | 26 lbs/1000ft |

Standards and Compliance

|                                 |                                                                                                                            |
|---------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| Environmental Suitability:      | Indoor/Outdoor, Indoor, Outdoor, Sunlight Resistance, Oil Resistance                                                       |
| Flammability / Fire Resistance: | UL1666 Riser, FT4, FT4, IEC 60332-1-2                                                                                      |
| NEC / UL Compliance:            | 800, CMR;CMX-Outdoor                                                                                                       |
| CEC / C(UL) Compliance:         | CMR                                                                                                                        |
| ICEA Compliance:                | S-90-661-2012                                                                                                              |
| NEMA Compliance:                | NEMA WC-63.1                                                                                                               |
| Data Category:                  | Category 5e                                                                                                                |
| TIA/EIA Compliance:             | ANSI/TIA-568.2-D Category 5e                                                                                               |
| CPR Euroclass:                  | Eca                                                                                                                        |
| European Directive Compliance:  | EU CE Mark, EU Directive 2015/863/EU, EU Directive 2011/65/EU (ROHS II), EU Directive 2012/19/EU (WEEE), REACH: 2020-01-16 |
| APAC Compliance:                | China RoHS II (GB/T 26572-2011)                                                                                            |

Part Number

Variants

| Item #        | Color | Putup Type | Length   | UPC          |
|---------------|-------|------------|----------|--------------|
| 7930A 0101000 | Black | Reel       | 1,000 ft | 612825191575 |
| 7930A 0102000 | Black | Reel       | 2,000 ft | 612825191582 |

Product Notes

|        |                                                                                                  |
|--------|--------------------------------------------------------------------------------------------------|
| Notes: | Operating temperatures are subject to length de-rating. Cable passes -25C Cold Bend per UL 1581. |
|--------|--------------------------------------------------------------------------------------------------|

History

|                      |                                                  |
|----------------------|--------------------------------------------------|
| Update and Revision: | Revision Number: 0.332 Revision Date: 07-28-2020 |
|----------------------|--------------------------------------------------|

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